

Tutorial Description

Hello and welcome to the Flight Tutorial.

This is the sixth in a series of tutorials designed to teach players the fundamentals of airplane operations in CMANO. In this tutorial, the following topics will be covered:

- Shooting down patrols of enemy airplanes.
- Shooting down enemy airplanes armed with modern medium and long-range missiles.

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Briefing

Welcome to the Modern Airplanes Interception Tutorial.

In this scenario you will be guided through the following topics:

- Shooting down patrols of enemy airplanes.
- Shooting down enemy airplanes armed with modern medium and long-range missiles.

In this scenario pop-ups will appear with important messages. You can find them in the document that comes with the tutorial or you can open the message history in a second window by pressing Ctrl+Shift+M and scrolling to the appropriate message.

Note: To successfully complete this scenario, you will need to use the knowledge gained in the previous tutorials.

Message 1

Good morning!

Today you will impersonate the commander of the Ramat David Air Base in Northern Israel and you will learn how to engage enemy airplanes armed with modern weapons.

You have 6 F-16I Sufa, 4 F-15I Raam, 2 F-15A Baz in the 1995 version, 2 Gulfstream G550 AEW Nahshon, 2 707 Saknayee tankers and 2 Hermes 900 Star UAV under your command.

On the various airplanes, you have loaded these Air-to-Air missiles:

AIM-120C-7 AMRAAM - All-Aspect and Datalink (DL/INS) mid-course plus Active Radar Homing (ARH) terminal guidance - 2-60nm

Python 5 - All-Aspect High Off-Boresight mid-course plus Passive Infrared (IR) terminal guidance – 0,2-15 nm

Python 4 - All-Aspect High Off-Boresight mid-course plus Passive Infrared (IR) terminal guidance – 0,2-10 nm

AIM-7F Sparrow III - Semi-Active Radar Homing (SARH) - 2-55nm

AIM-9L Sidewinder - All-Aspect mid-course plus Passive Infrared (IR) terminal guidance - 0,2-10nm

Python 3 - All-Aspect mid-course plus Passive Infrared (IR) terminal guidance - 0,2-8nm

The fighters also have some DECM Pods.

Defensive ECM Systems are devices designed to improve the survivability of the aircraft by deceiving the radar or IR sensors on enemy missiles.

They operate alongside chaff (to deceive radars) and flares (to deceive IR sensors).

These DECM Pods are:

EL/L-8202 DECM Pod – F-15I Raam and F-15A Baz

SPS 2100 DECM – F-15I Raam

EL/L-8240 DECM – F-16I Sufa

Message 2

We have good intelligence that some Syrian airplanes are coming this way to escort a Tu-22MR Backfire C on a recon mission.

We don't want the Syrians to collect intelligence over Israel, so the intruders must be destroyed.

We expect the Syrians to use these fighters:

MiG-23ML Flogger G, armed with

AA-7 Apex C [R-24R] – SARH 2-24nm

AA-8 Aphid [R-60TM] – All-Aspect mid-course plus Passive Infrared (IR) terminal guidance 0,2-5nm

MiG-25P Foxbat A, armed with

AA-6 Acrid A [R-40R] – SARH 4-30nm

AA-6 Acrid B [R-40T] – Rear-Aspect mid-course plus Passive Infrared (IR) terminal guidance 4-30nm

MiG-29M2 Fulcrum C, armed with

AA-11 Archer [R-73] – All-Aspect High Off-Boresight mid-course plus Passive Infrared (IR) terminal guidance – 0,2-10 nm

AA-10 Alamo A [R-27R] – SARH 2-45nm

AA-12 Adder [R-77] - All-Aspect and Datalink (DL/INS) mid-course plus Active Radar Homing (ARH) terminal guidance - 2-45nm

These medium and long-range missiles are a serious threat, particularly the AA-12 Adder that can be used in a fire-and-forget mode.

We have longer-range missiles, so if we have good situation awareness we should be able to destroy the intruders easily.

Start by switching on a radar or, better, launch a G550 AEW Nahshon. Then order some fighters to take off.

Note 1: When facing the Floggers and the Foxbats, you can turn off Automatic Evasion (CTRL + SHIFT + F9). In this way, you can use SARH missiles against the enemy even if they fire back (they will break contact trying to evade your missiles, thus losing control of their own SARH missiles).

Be careful, as without Automatic Evasion you are an easier target for fire-and-forget missiles!

Note 2: Both the AIM-120C-7 AMRAAM and the AIM-7F Sparrow III have a longer range than the russian-made missiles on these Syrian fighters.

The AIM-120C-7 AMRAAM has a PoH (Probability of Hit) of 95%, while the AIM-7F Sparrow III has a PoH of 70%.

This value decreases at long range (an AIM-120C-7 can drop below 65%) and can be further reduced by the enemy fighter's altitude, agility, direction etc.

To increase the probability of destroying the enemy plane, you can reduce the firing distance in the WRA Page (CTRL + SHIFT + F9 for the Side Doctrine Window or CTRL + F9 for the Unit Doctrine Window).

Message 3

You have just detected some enemy airplanes.

You may have noticed that they are flying in couples.

This is a standard formation for fighters, first developed in the 1930s, with patrols composed of a leader and a wingman.

The wingman's role is to add an element of support to aerial combat, increasing both defensive and offensive capabilities and situation awareness.

One common tactic for this formation is to use one fighter to draw the attention of an enemy plane, and then hit it from behind with the second fighter.

Try to engage them at least on a 2 vs 2 basis.

Destroy all the enemy planes!

Message 4

Well done! You have successfully destroyed all the enemy airplanes.

I suggest you try again this scenario using different airplanes and weapons, to learn the various differences between them and the various possible tactics to employ them.

When you think to be ready, head over to the next tutorial.

Message Failure

You have sustained unacceptable losses!

Play again the scenario and try to destroy the enemy airplane without losses!

Message Civilian Killed

You have just destroyed a civilian airplane!

In real life, this is a war crime!

Play again the scenario and be more careful when you decide to shoot!